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DECISION



THE COMPTROLLER  
OF THE UNITED STATES  
WASHINGTON, D.C. 20548

Robert  
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FILE: B-191459

DATE: August 1, 1978

MATTER OF: Smoke Detectors

DIGEST:

1. Rejection of offerors on basis of unstated specification rendered procurement defective. Corrective action is recommended.
2. Where offerors in negotiated procurement were required to submit test samples to establish compliance with specification, but agency rejects offered equipment on basis of inconclusive statements in literature submitted with offers and does not perform test to evaluate units, proposal rejection was improper. Contracting officer should have conducted oral or written discussions or obtained clarification prior to any determination of technical unacceptability and establishment of a competitive range.

Portsmouth Hardware and Building Supply, Inc. (Portsmouth); Interstate Electric Supply Company, Inc. (Interstate); Home Safeguard Industries, Inc. (Home); and Casady Engineering Associates (Casady) have protested the rejection of their proposals under Request for Proposals (RFP) No. 1030-821280, issued by the Department of State (State), Supply and Transportation Division, Arlington, Virginia.

The RFP called for the furnishing of a quantity of smoke detectors for installation in U.S. Department of State's foreign posts throughout the world. The fourteen vendors proposing in response to the RFP offered six different brands of smoke detectors. In accordance with the special provisions of the RFP, each offeror furnished, for testing purposes, a working shelf model of the smoke detector it proposed.

State called upon the U.S. Department of Commerce, National Bureau of Standards, Program for Fire Detection and Control Systems Center for Fire Research

(Bureau) to test the six different brands of smoke detectors to determine each brand's ability to satisfy all of the RFP specification features.

The Bureau concluded that only one brand of smoke detector, identified by the trade name "Guardion", met all seven specification features and that the other five brands failed to meet two specification features. State then determined the competitive range for further negotiations to be composed of only those offerors, numbering six, which proposed the "Guardion" smoke detector, and subsequently allowed those six the opportunity to submit best and final offers. Offerors proposing brands of smoke detectors other than the "Guardion" were declared technically unacceptable and excluded from further consideration by State.

Regarding specification feature P-3, the Bureau test report indicated the following:

"Specification 3 - Batteries shall periodically electronically test unit under load conditions to insure proper operation.

"As was related by Mr. Morrison [State] verbally, the intent of this specification is to require supervision of the detector battery for both terminal voltage and internal resistance build-up which can prevent the detector from operating for alarm conditions. This condition can result from internal resistance buildup within the battery cell or cells, or at the battery terminals, or can result from the inadvertent substitution of the wrong type of 9 volt battery. While all six detectors (A through F) specify either or both of the Mallory MN 1604 or Eveready type 522 battery, any other 9 volt transistor radio type battery will fit within the unit. Should the improperly installed battery be a manganese dioxide or carbon zinc type (as opposed to the alkaline types

specified) the battery internal resistance can feasibly be high enough to prevent operation of the detector for alarm either when installed or later during the life of the battery. Provision of internal resistance supervision precludes this from happening in that any combination of terminal voltage and internal resistance approaching a value which will prevent operation will cause a trouble signal to sound while the detector is still operable.

"Since circuit schematics were not provided with the six units, a circuit analysis for this type of operation was not possible. Therefore, the six detectors were analyzed experimentally to determine if they provide this feature.

\* \* \* \* \*

"Based on the above analysis it is apparent that the only detector which provides internal resistance supervisory circuitry is detector B [Guardion]. Only in the case of detector B would it be impossible to have a combination of battery voltage and internal resistance which would prevent the detector operating for alarm without previously having indicated a trouble condition \* \* \*." (Emphasis added.)

The protesters are concerned, as are we, that all smoke detectors were tested against a different standard than that disclosed to all the proposers by the terms of the RFP. At least one protester believes its unit "does in fact periodically electronically test unit under load conditions to insure proper operation by periodically (twice per minute) checking the battery and visually signaling a 'LED' light, proving integrity of unit."

Although State asserts that the oral information provided to the Bureau by its Mr. Morrison was merely a "needed amplification of major factors," the protesters claim that the information was an undisclosed specification feature which materially changed the meaning of F-3.

We believe the record indicates that the instant RFP failed to state the F-3 requirement with sufficient particularity to allow for equality of competition. We are not persuaded that one could reasonably conclude that the RFP's specification for a self-testing capability was intended to require the capability to supervise the battery for internal resistance build-up. The error is compounded by the fact that this was a negotiated procurement and that the addition of a previously unstated specification feature could have been provided by an amendment to the RFP, once the need for definition became known to State.

Moreover, our review of the Bureau report discloses a series of tests which are not demonstrated to have relevance to the actual usage of the detectors. The detectors were subjected to tests for theoretical failure modes which may not occur in actual usage. For example, the Guardian unit gives a trouble indication at a resistance of 4 ohms when operating at 8.25 volts. Another brand which was not designed to provide such an alarm, operates without difficulty up to a resistance of 50 ohms.

We have recognized that it is proper for a contracting agency to establish specifications reflective of its legitimate needs based on its actual experience engineering analysis, logic or similar rational basis. Bowers Reporting Company, B-187512, August 10, 1976, 76-2 CPD 144. Generally, however, a requirement for equipment meeting purely theoretical standards is unjustifiable. In the absence of evidence on the record to the contrary, we find that State improperly excluded five brands of smoke detectors for failure to meet standards for which State had no apparent legitimate

need, and, in any event, it failed to state the requirement with sufficient particularity to insure a common understanding of the Government's needs. In so doing, State contracted for, at a premium price, "Guardion" circuitry which protects against actual as well as theoretical dangers.

Accordingly, State's rejection of offerors on the basis of noncompliance with specification feature F-3 was unreasonable.

Regarding specification feature F-4, the Bureau test report indicated the following:

"Specification 4 - Low battery warning signal shall sound for thirty days once a minute to indicate low battery power..

"It is essentially impossible for us to test for this specification. Such a test would require the specified battery depleted to the detector trouble signal voltage level and would require a minimum of thirty days to complete. Thus our only suggestion is to go by the claims of the specific manufacturers.

"Each sample detector was provided with a home owners booklet containing various information about the detector. The text of each booklet was reviewed to determine the length of time that the low battery trouble indication is claimed to persist.

The following information was found:

<u>Detector</u>	<u>Specified Duration</u>
A	7 days min.
B [Guardion]	30 days typical
C [Gard-site]	2 weeks
D [BRK Electronics]	Not specified
E	7 days min.
F [Vigilante]	7 days

Thus, going strictly by the manufacturer's claims, only detector B [Guardion] appears to meet this specification. Again we state that we have made no attempts to verify the claims." (Emphasis added.)

One immediately noticeable problem in any attempt to evaluate for compliance with F-4 solely on descriptive literature submitted with proposals is the fact that nowhere in the RFP was there a requirement that any literature, brochure, or owner manuals be submitted to permit evaluation of compliance with the specification. Additionally, it has come to our attention through independent review of the literature actually submitted with the test models, and statements made in State correspondence, that the Bureau report is factually incorrect in important areas.

For example, the Bureau report indicated that from its review of the literature submitted with the models, it found that Detector F, "Vigilante," had a specified duration of "7 days," when, in fact, the literature actually states "at least 7 days." (Emphasis added.) Qualifying words and phrases such as "at least," "minimum," "typical," "not specified," and "about" whether found in the Bureau report or the basic literature are of significance. They should have placed the contracting officer on notice that oral or written discussions or clarifications be undertaken prior to any determination of technical unacceptability and establishment of a competitive range based on F-4 evaluations.

Our Office has held that a proposal must be considered to be within a competitive range so as to require negotiation unless it is so technically inferior or out of line with regard to price that meaningful negotiations are precluded. 48 Comp. Gen. 314 (1968). Without further clarification through written or oral discussions, State was in no position to declare any protester technically unacceptable and not capable of being made acceptable with regard to the requirement for a 30 day warning signal. Accordingly, the determination to exclude proposers from the competitive range based solely upon a Bureau report which was inconclusive and factually inaccurate was unreasonable.

Finally, we note that State negotiated this procurement, pursuant to 41 U.S.C. § 252(c)(10), because the "technical office is unable to draft for an invitation for bids adequate specifications \* \* \*." Although we question whether such a standard, off-the-shelf, commercial item as a smoke detector could not adequately have been described for purposes of formal advertising, the record indicates that the negotiation method was not utilized to any beneficial extent.

Having reached the above stated conclusions concerning State's evaluation processes, we sustain the four protesters in their claims that their proposals were improperly rejected for nonconformance with specification features F-3 and F-4 of the RFP.

State has advised us that the contract has been substantially performed, and we therefore do not recommend that it be terminated for the convenience of the Government. Our Office, however, recommends that the option for additional quantities under the instant contract not be exercised and that any future solicitations for smoke detectors clearly portray specification features which have been determined not to be unduly restrictive of competition and not to exceed the minimum requirements of the Department of State.

By letter of today, we are advising the Secretary of State of our recommendations.

This decision contains a recommendation for corrective action to be taken. Therefore, we are furnishing copies to the Senate Committees on Governmental Affairs and Appropriations and the House Committees on Government Operations and Appropriations in accordance with section 236 of the Legislative Reorganization Act of 1970, 31 U.S.C. § 1176 (1970), which requires the submission of written statements by the agency to the Committees concerning the action taken with respect to our recommendation.

  
Deputy Comptroller General  
of the United States